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ABSTRACT

A questionnaire study among 19 black males, 23 black females, 176 white males, and 114 white females investigated the joint effects of race and sex on the attribution of past performance in college and expectancy for future academic success. The results show sex effects to be more pronounced than race effects in both attribution and expectancy. It is suggested that middle-class, college-educated blacks share the same sex-role stereotype characteristic of the white middle-class. Black women were found to have more pessimistic views of their academic achievement than the other groups. Black women's attributions are discussed in relation to the high standards of excellence they seem to set for themselves. (Author)

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Sex and Race Effects in the Attribution of Achievement and Expectancy for Success

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Weiner and his colleagues' reformulation of achievement motivation in attributional terms (Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1971) has generated substantial interest in investigating sex effects in achievement attributions and expectancy for success (Feather, 1969; Feather & Simon, 1971; Jackaway, 1974; McMahan, 1973; Valle & Frieze, 1976). However, there is a paucity of research investigating race effects, the exceptions being two studies by Murray and Mednick (1975, 1977).

Achievement and Causal Attribution. Weiner and his colleagues propose that when trying to understand the causes of their success or failure people frequently refer to four factors: their ability, the effort they put into the work, their luck, and the ease or difficulty of the task. Success can be attributed to high ability and/or trying hard, as well as to good luck or the easiness of the task. Conversely, failure can be explained in terms of lack of ability, not trying hard enough, bad luck, or the difficulty of the task. These four causal explanations of achievement behavior have been jointly classified along the dimensions of internality and stability. Ability and effort are considered to be internal factors, for they originate in the person; luck and task difficulty are considered external factors originating outside the person (see Rotter, 1966). Internal attributions for success and failure have been associated with pride and shame respectively. Greater pride after success and greater shame after failure have been observed when internal factors are used to explain

performance than when external factors are invoked (Riemer, 1975; Weiner, et al., 1971; Weiner, Heckhausen, Meyer, & Cook, 1972).

On the stability dimension, ability and task difficulty are considered to be relatively stable, not likely to change over time, while effort and luck are classified as unstable. Whether attributions are made to stable or unstable factors appears to have implications for expectations of future performance (Weiner, et al., 1972). Explaining success in terms of stable factors, i.e., one's ability to do well or the easiness of the task, encourages anticipation of further success. Attributions of success to effort or good luck, both of which are subject to change, however, does not necessarily lead to an expectancy of continued success. On the other hand, when failure is attributed to lack of effort or bad luck, improvement in future performances remains a possibility.

Studies employing Weiner's formulation of achievement attributions show that white men make internal attributions for their successes but externalize the causes of their failures (Feather, 1969; Simon & Feather, 1973; Weiner & Kukla, 1970: Weiner & Potepan, 1970). Although the evidence is less than unequivolcal, white women tend to make external and/or unstable attributions to explain their achievement behavior. They frequently invoke characteristics of the task, luck, or effort as causal explanations (Frieze, Fisher, Hanusa, McHugh & Valle, in press; Jackaway, 1974; McArthur, 1976). White women often attribute both their successes and failures to luck; white men, on the other hand, tend to attribute their success internally to ability while externalizing the causes of their failures (Feather, 1969; Simon &

Feather, 1973). In general, white women's attributional patterns do not seem to be conducive to a feeling of pride in the face of success, nor to expectations of continued success. The two studies employing black subjects (Murray & Mednick, 1975, 1977) show that achievement oriented black women prefer internal attributions but that no clear pattern is discernible for black men. These findings do not allow for meaningful comparisons for they were obtained in studies using different achievement tasks and modes of measuring attributions. A direct comparison is necessary for an adequate appraisal of race and sex effects in the attribution of achievement.

Expectancy for Future Success

In general, white women tend to have lower expectancies for success. White men's tendency to form higher expectancies were found among subjects ranging from elementary school children to college students across a variety of tasks (Crandall, 1969; Feather, 1969). Women's tendency to form lower expectations was observed especially on tasks which may be considered masculine, such as marble dropping or arithmetic but also on such sex-neutral tasks as concept formation (Frieze, 1975). However, the evidence for white women's lower expectations is not unequivocal. A replication of Feather's (1969) study by Feather and Simon (1973), employing anagram solving - a task which can be considered sex-neutral - showed men and women not to differ in expectancy.

McHugh(Note 1) points out that inconsistent evidence for sex differences in expectancy may be caused by a lack of clarification in the research design regarding whether specific or general expectancies

are being assessed. She reports that in a study with white subjects, House and Perney (1974) found males to form high expectancies when they employed a novel task with which subjects had no previous experience. However, when expectancies were assessed after pretest experience with the task, females were found to form higher expectations of future success. McHugh suggests that males may have a higher generalized expectancy which allows them to predict favorable outcomes even in novel situations. Women, on the other hand, may lack such general confidence. They predict positive outcomes only after specific experiences on a given task.

Distinguishing between generalized and specific expectations and masculine versus neutral tasks appears to be relevant to investigating sex differences in expectancy among blacks also. Murray and Mednick (1977) asked black students in an introductory statistics course to state what grade they expected on a mid-term examination, on the final examination, and as a final grade in the course. When forming generalized expectancies, i.e. anticipating final grade in the course, men had higher expectations. However, expectancy for a specific grade assessed immediately prior to mid-term or final examinations showed no significant sex differences. Murray and Mednick attribute black men's higher generalized expectancy to the sex-linked nature of the statistics course. Data collected by Murray (Note 2) suggests that mathematics is considered a masculine field by both black men and women. A second study by Murray and Mednick (1977) shows that in a course on personality theory, more sex-neutral than statistics, initially black women had higher expectations than black men. After receiving concrete feedback on their performance, women lowered their expectancy for grades on the second examination while men's expectancy remained unaffected. Thus, sex differences in ex-

pectancy among blacks regarding sex-typing of a task tend to parallel results obtained with white samples, while results pertaining to the effect of concrete feedback are inconsistent. However, it should be noted that these results showing race effects in expectancy among women were obtained in studies employing different tasks. Black women's expectancies were for grades on college examinations, white women's were for laboratory-type tasks.

The present study examines the joint effects of race and sex on the attribution of past performance in college and expectancy for future achievement. The absence of research on black and white comparisons, coupled with the scarcity of studies comparing black men and women make hypothesizing about race and sex effects precarious. One exception to the uncertainty surrounding race and sex effects is the consistent finding that black and white males form high generalized expectancies for future success on masculine-type tasks. Thus, the only hypothesis proposed in this study is that sex differences will be more pronounced than race differences in expectancy for success.

Method

Subjects

Three-hundred-thirty-two college freshmen who share the same core curriculum at a large private university volunteered to participate in a study of their perceptions of academic success. Subjects were solicited during a class meeting in four introductory psychology courses which yielded a volunteering rate of approximately 95%. There were 19 black males, 23 black females, 176 white males, and 114 white females in the sample. The sample consisted mostly of middle-class

and upper-middle class subjects, judged on the basis of total family income.

Procedure

Four weeks into the second semester students had received their grades for the previous term but had not yet gotten firm feedback on their current semester performance. At that time instructors in introductory psychology classes administered a questionnaire on perceptions of academic success.

The first question asked whether subject's grades for the previous term were lower than, same as,or higher than what might be expected in view of their high school performance. Next, a short paragraph explained that college performance is often perceived to be caused by one's ability, effort, luck, and difficulty or easiness of the college program. Subjects were asked to give percentage weights to each of these four factors adding up to 100% to explain their previous semester's grade point index (GPI). They were also asked to indicate whether a given causal factor helped, had no effect, or hurt their grades as follows:

Your ability _____ %	Ability helped _____ Ability had no effect _____ Lack of ability hurt _____
Your effort _____ %	Effort helped _____ Effort had no effect _____ Lack of effort hurt _____
Your luck _____ %	Good luck helped _____ Luck had no effect _____ Bad luck hurt _____
Easiness or difficulty of the program _____ %	Easiness helped _____ Ease or difficulty had no effect _____ Difficulty hurt _____
100 %	

The next question asked what they expected their GPI would be at the end of the current semester on a scale from one to six, where one indicated a D average or worse and six indicated a B+ average or better. Finally they were asked to rate on a six-point scale the difficulty of the college program, whether success in college is important to them, their ability to do well, how satisfied they are with their academic performance, and whether they consider themselves successful in college.

Results

The close approximation to a normal curve obtained in the distribution of grade point index justified its use as an outcome measure for eliciting attributions. GPI, computed on the basis of a four-point scale, ranged from 0.5 to 4.0, with a mean of 2.475 and standard deviation of 0.640.

Attribution of Achievement

Two types of attribution measures were obtained. One was the percentage weight assigned to each one of the four causal factors ability, effort, luck, and ease in determining past semester's GPI. The other measure was a rating of the perceived role played by each causal factor - whether it helped, had no effect, or hurt past semester's performance. These yielded eight race and sex comparisons in attribution. Measures of attribution were analyzed by means of 2(race) by 2 (sex) analyses of variance. Because of the unequal number of blacks and whites in the sample, the experimental design approach to analysis of variance was employed to minimize the effect of unequal cell frequencies (see Overall & Spiegel, 1969). The eight race and sex compar-

isons of attribution yielded three sex effects, one race effect, and one interaction effect.

Ability was perceived to be the most important causal factor by all groups except white women, who also gave it high weights.

A significant race effect was obtained for ability attributions, F (1,324) = 4.358, $p \leq .05$, with blacks giving ability more weight than whites. A significant sex effect was also obtained, F (1,324) = 6.073, p .01, where men make higher ability attributions than women. Analysis of the role played by ability yielded a significant interaction effect, F (1,319) = 3.817, $p \leq .05$. An examination of Table 1 reveals that while all groups perceived their ability to be helpful, ratings of black women were not as high as those of other groups.

Effort was generally perceived to be the next most important causal factor, except by white women who gave it more weight than ability. A significant main effect for sex was obtained for effort attributions, F (1,324) = 11.105, $p \leq .001$. Black women gave more weight to effort than black men, white women more than white men. While all groups perceived their effort to be helpful (see Table 1) no significant differences were observed for declaring effort as conducive to performance.

Insert Table 1 about here

Luck received the lowest weights among the four causal factors.

There were no significant effects observed for luck attributions, nor for the role played by luck. In fact, luck was per-

ceived to have a negligible effect on performance (see Table 1).

Difficulty of the college program was considered a relatively unimportant causal factor but more important than luck. No significant differences emerged in attributions to difficulty. However, a significant sex effect was obtained for the perceived role played by difficulty, F (1,316) = 11.624, $p \leq .001$. Women were more likely to see difficulty of the program hurting their performance than men (see Table 1).

Expectancy for Success

A 2x2 analysis of variance of whether past semester's GPI was lower than, same as, or higher than expected relative to high school performance revealed a significant race effect, F (1,326) = 5.96, $p \leq .01$. Blacks were more likely to claim that their college grades were lower than expected in view of their achievement in high school (see Table 2).

A 2x2 analysis of variance of GPI expected at the end of the current semester showed a significant sex effect, F (1,328) = 10.113, $p \leq .01$. Table 2 reveals that men's expectancy for future success is higher than women's.

Insert Table 2 about here

Attitudes Toward College Performance

The results show that all groups perceive the College program to be somewhat difficult, with women perceiving it as more difficult than do men, F (1,327) = 8.405, $p \leq .01$. No differences are observed in how important it is to be successful in college. All groups attach great importance to academic success, giving it an average rating of

5.2 out of a possible 6. Again, no differences are observed for rating one's ability to do well in school. On the average, all groups claim to have the necessary ability. When it comes to how much effort they expend in college, all groups claim they try hard but women say they try harder, F (1,326) = 16.301, $p \leq .001$. No group seems particularly satisfied with its academic performance. Finally, perceptions of success in college are generally low, with blacks perceiving themselves to be less successful than whites, F (1,325) = 51540, $p \leq .05$ (see Table 3)

Insert Table 3 about here

Discussion

The results show that sex differences are more pronounced than race differences in both attribution of achievement and expectancy. Men, more than women, perceive their academic achievement in ways conducive to feelings of pride and continued success. Men then go on to report higher expectations of success than women. That gender is a more powerful predictor of attribution patterns and expectancy than race may, in large part, be due to the social class background of the sample. It appears that in a largely middle-class and upper-middle-class college population, social obstacles in the way of blacks' achievement have been sufficiently overcome to give black men the same optimism about success characteristic of white men. However, the same, bight outlook for success does not characterize black women's views of their achievement, nor the views of white women. The results suggest

that college educated blacks share the sex-role stereotyping characteristic of the white middle-class which defines academic success in college and in future occupations to be a male domain. This interpretation is supported by Gurin and Epps' (1975) findings that sex differences in occupational aspirations observed among white college students are prevalent among black college students.

Attribution of Achievement

Although men and women, and to a lesser extent blacks and whites differ in the ways they explain achievement, the overall importance attached to ability, effort, luck, and task difficulty as causal factors does not show much variation across race and sex. Ability and effort are perceived to be the major determinants of college performance. The external causes, task difficulty and luck, are perceived to be much less important than internal causes. The greater causal power attributed to internal factors was also obtained in a study by Luginbuhl, Crowe and Kahn (1975) which employed a similar method of measuring attributions by percentage of causal weight assigned to each factor.

While there were no major differences in perceiving one cause as more powerful than another cause, race and sex effects were observed in the importance attached to each factor. Blacks perceive ability to be more influential than whites, men more than women. Men's preference for ability attributions has been obtained in other studies (see Frieze, 1975) and is in line with popular sex-role stereotypes which bestow greater competence on men than on women (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). Blacks' preference for ability attributions, however, is an unexpected finding, especially in view of black

people's historical suppression in a society dominated by whites (see Murray & Mednick, 1975, 1977).

It appears that the importance attached to ability as a determinant of performance has different meanings for black men and women. Black men, like white men, perceive ability as helping their performance. It may be that black men explain how they were able to overcome social obstacles standing in the way of black achievement by emphasizing the role played by their abilities. Black women, on the other hand, do not perceive ability as helping their performance as much as do the other groups. It is as if black women are explaining a general lack of achievement by exaggerating the importance of an ingredient for success which does not work well for them. However, since black women do not rate their ability to do well in college below any other group, their perception of the role played by ability, and indeed the role played by most other determinants of performance, may best be interpreted in light of their high standards of excellence. Black women tend to be the least satisfied with their performance and least likely to view themselves as successful. Their tendency to give low helpfulness ratings to most factors may be an attempt to explain why their performance falls short of their personal standards.

In general, women were found to place a greater emphasis on effort than men. Black women display this same tendency but it is most exaggerated in white women. It appears that the same sex-role stereotype which portrays men as the more competent sex, suggests that if women who lack such capabilities are nonetheless achieving, it must be that they try harder. Women's tendency to make effort attributions to

explain their performance is shared by observers' attributions of women's achievement. Feldman-Summers and Kiesler (1974) have found that observers attribute greater effort and motivation to explain women's success than men's which, incidentially, is more likely to be attributed to ability.

Women more than men perceive the difficulty of the program as hurting their performance. Women also perceive college to be more difficult. While this tendency may be due to women feeling inadequately prepared for college, it may also be evidence of a tendency to externalize possible failures. That women may be attempting to externalize the causes of failure appears more suited to understanding black women's attributions than white women's. The least satisfaction with performance and the highest difficulty ratings of the college program are made by black women who also complain the most that difficulty hinders their performance.

Expectancy for Success

Blacks claim that their college performance falls short of what they would have expected on the basis of their high school grades. However, this relative lack of success does not affect black men and women the same way. As was found by Murray and Mednick (1977), black men are unaffected by performance feedback in forming expectations of future success. Their expectations for future grades are almost as high as those of white men, confirming the hypothesis that men have higher expectations for success than women. Black women, however, seem to lower their expectations for future success upon receiving feedback on their performance. They do so despite the fact that the perceived discrepancy between high school and college performance is not as high for black

women as it is for black men who remain unaffected by it. The slight decline from the expected appears to be a sufficient source of discouragement for black women causing them to lower their expectancy for future performance rather sharply.

White women do not perceive their college grades to be much different than what they expected on the basis of their high school performance. Yet, they, too, form low expectations of their future success. Women's general tendency to have low expectancies for success must be understood to be in large part due to college being traditionally defined as a domain for male excellence. Women's low expectations for masculine-type endeavors has been well documented in previous studies (see Frieze, 1975). It appears that familiarity with a task gained through performance feedback is not a sufficient impetus to raise women's expectancies on an essentially masculine endeavor.

Summary and Conclusions

The results obtained on race and sex differences suggest that, in middle class college populations, attribution of achievement and expectancy for success are more influenced by gender than by race. Relative to women, men display greater confidence in their future success. Furthermore, they prefer ability attributions which not only insure continued success but also afford greater pride in achievement. Black and white men are essentially similar in their views of their college performance with the exception that black men perceive themselves to be less successful in college.

Women, on the other hand, have a greater tendency to emphasize the role played by effort and difficulty of the task. Effort attribu-

tions can be conducive to increased pride but they are not likely to lead to an expectation of continued success. It is not surprising, then, that women have low expectations of their future achievement. Black women's view of their academic performance tends to be somewhat more pessimistic than that of white women. They complain of the difficulty more, they have lower expectations of success, and they see themselves as unsuccessful.

Black women's generally unfavorable view of their academic standing cannot be explained on the basis of either sex or race alone. Black men who share their dissappointment in academic success do not display the same lack of confidence in the future, nor do they see the college program as debilitatingly difficulty. White women who share their lack of confidence, and emphasis on effort and task difficulty as determinants of performance do not view themselves as unsuccessful in college. It is tempting to conclude that black women's attributions and expectations for achievement are psychological reactions to their social position of double jeopardy, one for being black and one for being female. Yet the picture is not so simple. Black women's dissatisfaction with their performance is no doubt partly due to the high standards of excellence they set for themselves. A closer examination of the results suggests that black women appear pessimistic about their achievement because they are frustrated with not being as successful as they would like to be. We can only speculate about the origins of black women's higher standards of excellence. Perhaps, in the wake of affirmative action programs, they are responding to increased opportun-

ities for occupational mobility for black women by internalizing high standards of performance. Or perhaps, black women have always espoused high standards due to the special place they occupy in the black family as a source of stability. A third possible explanation of black women's high standards of excellence may be sought in the stereotype of the successful black female, what Gurin and Epps (1975) call the myth of female dominance in black society. The stereotype portrays black women as being better educated than black men, enjoying higher employment rates, and more frequent promotions. While the stereotype is unfounded in fact (see Harwood & Hodge, 1971; Jackson, 1971), its wide acceptance and familiarity may be a lingering source of influence on black women's achievement standards.

Future research should be directed at studying populations other than the middle class to test the generality of sex effects obtained in this study and to see if black women of different social backgrounds share the high standards of excellence found among this largely middle-class sample.

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Table 1

Mean Ratings of Perceived Role played by each Causal Factor

	Black		White	
	Men	Women	Men	Women
Ability	.72	.27	.58	.68
Effort	.28	.32	.36	.49
Luck	.06	-.24	.08	.06
Task Difficulty	-.29	-.41	.01	-.30

Note: Perceived role played by each factor was measured on a 3-point scale where 1=helped, 0=had no effect, and -1=hurt performance.

Table 2

Mean Expectancy Ratings

	Black		White	
	Men	Women	Men	Women
College performance relative to expectations based on high school performance [a]	1.4	1.7	1.9	1.8
Expectancy for future grade point index [b]	4.0	3.5	4.1	3.8

[a] Measured on a 3-point scale where 1=lower than expected, 2=same as expected, and 3=higher than expected.

[b] Measured on a 6-point scale where 1=a D average or lower and 6= a B+ average or higher.

Table 3

Mean Ratings of Attitudes toward College Performance

	Black		White	
	Men	Women	Men	Women
Difficult program	3.9	4.2	3.6	4.0
Success in college is important	5.2	5.6	5.1	5.2
Able to do well	4.8	4.6	4.6	4.4
Try hard to do well	4.4	4.5	4.1	4.7
Satisfied with performance	3.0	2.5	2.9	3.2
Successful in college	3.7	3.2	3.9	3.8

Note: Attitudes were measured on a 6-point scale where a x score of 1 indicated strong disagreement with the statement and a score of 6 indicated strong agreement.